

REMARKS

Claims 20-35 and 38 are currently pending. Claims 36 and 37 have been cancelled. Claims 25, 31, 34 and 38 have been amended in response to the Examiner's "Claim Objections" set forth in item No. 8 on pages 3 and 4 of the Official Action, and not herein repeated. Claim 20 has also been amended, without introducing any new matter into the application. Support for the amendment is found in the specification at pages 13.

In item No. 6 on pages 2 and 3 of the Official action, the Examiner objected to the deletion of Figure 11. Claims 36 and 37 which recited a cuboid collection electrode (as shown in Figure 11) have now been cancelled.

On the merits, Claims 20-21 and 38 have been rejected under 35 U.S. §102(b) as anticipated by Fiedler et al. (Anal. Chem., 70, pp. 1909-1915 (1998)). The arguments in support of the Examiner's ground for rejection are discussed in item No. 10 set forth on pages 5-7 of the Official Action, and not herein repeated.

Further, the Examiner has rejected Claims 20 and 36-38 under 35 U.S. §102(e) as anticipated by U.S. Patent No. 5,814,200 (Pethig et al.). The arguments in support of this ground for rejection are set forth in item No. 11, on page 7 of the Official Action, and not herein repeated.

The Examiner has also rejected Claim 32 under 35 U.S. §103(a) as obvious over Fiedler et al. The reasons advanced by the Examiner in support of this rejection are discussed in item No. 13 on pages 7 and 8 of the Official Action, and not herein repeated.

Applicants respectfully traverse all pending grounds for rejection; and further acknowledge the conditional allowance of pending claims 33-35.

The subject matter of Claim 1 is not disclosed in the Fiedler et al. reference which does not disclose the recitation of a microelectrode with a band-shape having a curvature or

comprising straight electrode sections having different angles relative to the longitudinal channel direction so that the field barrier generated with the microelectrode has a predetermined parabolic or hyperbolic curvature relative to the longitudinal extension of the channel. To the contrary, the Fiedler et al. reference discloses straight electrodes sections only forming a field barrier which may be curved but not have a parabolic or hyperbolic shape. The same is true with regard to the Pethig reference.

Further, the references relied upon are absolutely silent with regard to curved band-shaped electrodes or sectioned electrodes forming parabolic or hyperbolic field barrier. However, it is this requirement of Claim 20 that provides an essentially improved dielectrophoretic particle manipulation. Parabolic or hyperbolic field barriers have a shape being adapted to the flow profile in the channel. Accordingly, the electrodes can be shortened without a loss of performance (see specification, page 12, last paragraph, to page 13, paragraph 3). This advantage of shorter electrodes has an essential effect even in microsystem technology.

Since all pending claims depend either directly or indirectly from the sole independent Claim 20, which has been rejected under §§102(b) and 102(e), if said claim is found patentable, all claims depending therefrom should likewise be found patentable.

Applicants contend that the requested amendment of Claim 20 merely seeks to more precisely claim the present invention by limiting the predetermined curvature of the field barrier to a parabolic or hyperbolic curvature relative to the longitudinal extension of the channel. While this is an amendment after final, it is an amendment which is designed to place the claims in condition for allowance, or in better condition for appeal; and does not require further searching and the need for filing a Request for Continued Examination.

PATENT

Reconsideration and allowance of the pending claims is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Bradley B. Geist", is written over a horizontal line.

Bradley B. Geist
PTO Reg. No. 27,551

Attorney for Applicants
(212) 408-2562